

Elinor's Town

Storybook Feedback Session Findings

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Rockman et al

Research & Evaluation

SUMMARY

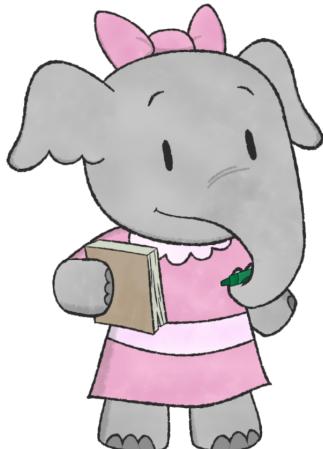
Researchers conducted storybook feedback sessions for a new PBS Kids program, *Elinor's Town*.* Participants included 274 children between the age of 3 and 5 in Indiana. After listening to the stories, participants provided feedback regarding what they liked, disliked, and learned.

* Although *Elinor's Town* has been renamed since the storybook testing study was conducted, it will still be referenced as Elinor's Town for the purposes of this report.

Study Design

In order to gather feedback on two proposed stories for *Elinor's Town*, early treatments were converted to digital slide decks called “storybooks” and presented to preschoolers. The storybooks created for this study were developed from treatments for episodes tentatively titled: *Feathers* and *Lizard Lounge*.

In-school sessions were organized by groups, with 30-40 students participating in each session. In order to accommodate all participants, researchers presented only one story during each session. However, the stories were alternated across groups so that both stories were equally tested. The stories were projected on a large screen while researchers read the stories aloud. During and after the story, researchers posed questions to the students to ascertain appeal and assess comprehension of certain concepts and terminology.



In-office sessions were organized by small groups, with 4-5 families (i.e., 4-6 children) in each group. Because these groups were smaller, researchers were able to present both stories in each session. The order in which the stories were presented was alternated across groups to eliminate order bias. With the smaller in-office groups, researchers were also able to implement hands-on activities to assess participants' comprehension of specific concepts. For *Feathers*, participants were each given a real feather and asked to make observations. For *Lizard Lounge*, participants were given felt lizards and asked to place them in the location (bright and warm vs. dark and cool) that a lizard would prefer. At the end of the sessions, families were asked to complete a short survey.

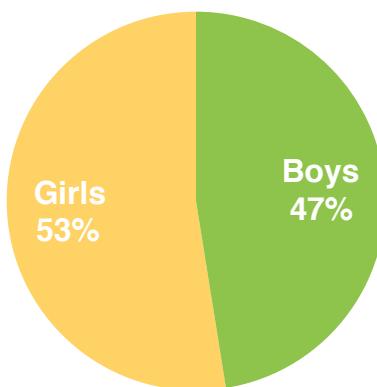
Participants

Participants in this study were children between 3-5 years old. They were recruited from Bloomington and Indianapolis, Indiana.

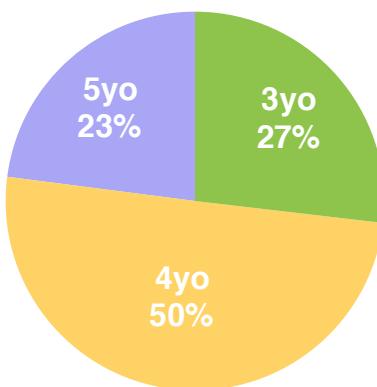
In Indianapolis, participants consisted of students from two Head Start centers.

Approximately 257 students participated in the storybook testing. All students were from low-income families and the majority represented an ethnically diverse sample. There was fairly even representation of male and female participants, and the sample mainly consisted of 4-year-olds (see figures below). Furthermore, 16% ($n = 40$) of the student population were English Language Learners (ELL)—i.e., non-native English speakers, and 7% ($n = 19$) had been identified as learners with special educational needs (SPED).

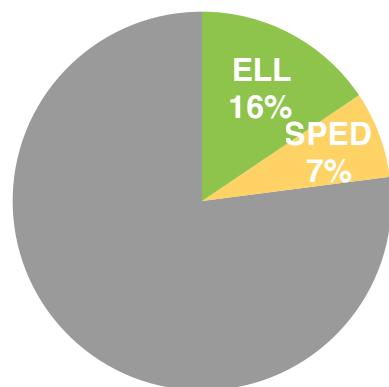
Distribution of Participants by Gender (In-school)



Distribution of Participants by Age (In-school)

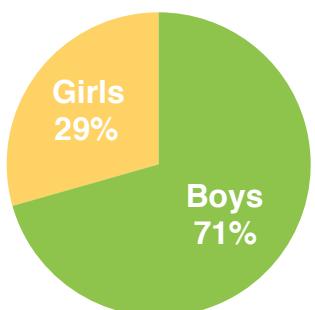


ELL & SPED Students (In-school)

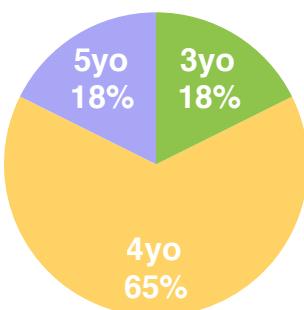


In Bloomington, participants consisted of local families, with both children and their parents attending sessions. Within the 14 participating families, there were a total of 17 preschoolers between the ages of 3 and 5 years old—the majority of whom were 4 years old. The families represented a broad range of economic and social backgrounds, with a third ($n = 5$) of the families reporting that they live in the more rural areas outside of Bloomington (see figures below). Furthermore, a third of the sample were considered low-income households, and a third of the families reported themselves to be multi-racial. There was also one child who indicated that he had fine motor challenges. There were more male than female participants.

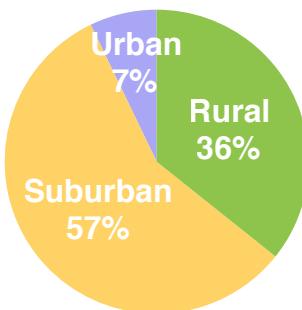
Distribution of Participants by Gender (In-office)



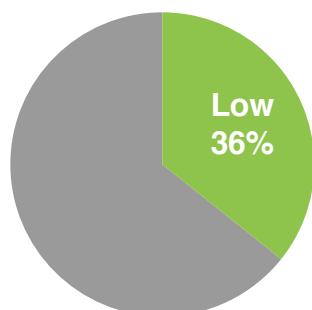
Distribution of Participants by Age (In-office)



Distribution of Participants by Community (In-office)



Distribution of Participants by Income (In-office)



Findings

Feathers

Engagement

Overall, participants from both in-school and in-office sessions exhibited high engagement and interest for this story. They reported liking the characters and their actions within the story. **Ari tended to be the most liked character**, with more than half the participant sample reporting him as their favorite. They liked that he found a feather and liked that he could fly. There were a lot of laughs and giggles as the researchers read the story, which suggests that children found the story to be amusing.

Researchers posed questions at different points during the story to gauge children's comprehension. For example, participants were asked at the beginning of the story, "Why do birds have feathers?" The most common responses to this question were: "**feathers are for flying**" and "**feathers help keep birds warm.**" A few children stated that feathers help birds eat, which suggests they might be connecting the fact that birds sometimes need to fly in order to find food.



Content Comprehension

Participants seemed to be learning new information from the *Feathers* story. However, information about birds and feathers were more frequently mentioned as the things they had learned about, rather than the fact that there can be different reasons for, or benefits to, having or using items like feathers or coats.

Almost all participants were unfamiliar with the word **observation**. Many claimed to have heard of the term, but they could not provide a definition. Therefore, researchers provided an explanation and then asked participants to make observations about Ari's feather. They were able to describe the feather in great detail, covering characteristics such as color, shape, size, patterns, etc., and this seemed to solidify their understanding. Participants were generally more familiar with the terms **decoration** and **decorate**; and they could provide examples (e.g., decorate a cake, decorate for a birthday, or Christmas decorations) to help explain the meaning of these words. However, children were not familiar with the concept of something being decorative, or use of the word, **decorate**, to describe a cosmetic function of feathers—nor did many come to understand this as a new application of the term.

For instance, when participants were asked to recall the ideas that Elinor and her friends had about why birds have feathers, a majority of participants who provided feedback were able to recall that they thought feathers help birds to fly and stay warm—furthermore they tended to agree with those ideas. However, most participants could not recall the decorative function of feathers suggested by Hazel. There were only a few individuals (approximately 2-3) who identified all three reasons presented in the story, but one of them explicitly stated that “**having feathers to look good was not a right answer.**” Other participants agreed that only two of the three reasons provided in the story were correct. Therefore, at the conclusion of the story, some preschoolers were not convinced that feathers served a decorative function. Likewise, there was not certainty that all of the ideas put forth by the characters in the story about why birds had feathers were correct.

When participants were asked what the story was about, many responses focused on specific details. For instance, they stated that Ari found a feather and the children in the story were learning about what feathers could do. There were also participants who reported that the characters were **trying to build a sandcastle**. This suggests that 1) the sandcastle detail was a very salient feature of the story, and 2) there may have been confusion about the objective of the story. Few mentioned the coat analogy—i.e., Mrs. Mole’s attempt to help the children in the story understand that there can be different reasons for having/wearing the same thing.

When researchers asked about the characters’ coats, participants could generally remember the reasons that Elinor and her friends gave for why they had each worn a coat. Therefore, they seemed to understand that coats serve many purposes, just like feathers, but they weren’t able to articulate this as something that the story was trying to communicate. Instead, they seemed to confound reasons for having feathers and reasons for wearing coats. For example, they described feathers as useful for keeping birds warm, helping them stay clean, keeping them dry, and helping them to fly. In other words, participants understood the different ways that coats and feathers could be helpful, but **rather than seeing the parallels related to feathers and coats having multiple functions, they were more likely to see similarities between the uses and purposes of both things.**

Ultimately, the coat analogy may have been too abstract for children to understand its purpose and function within the story. However, most participants did not have difficulty accepting the fact that more than one character’s idea about feathers could be right.



Suggestions

-  Preschoolers were unfamiliar with the concept that feathers can serve a decorative function. Perhaps this idea could be explained further or replaced with another function (e.g., keeping birds dry, helping them blend into their surroundings, etc.) that would be easier for young children to comprehend.
-  Preschoolers did not make the connection between feathers and coats—i.e., that both served multiple purposes. However, it seems the coat analogy may not have been necessary in order for children to see that there can be different reasons why birds have feathers.
-  If the objective of the story is to teach children that there may be multiple solutions to a problem (or several different reasons why something might be useful), then that idea may need to be stated more explicitly. While children generally seemed to accept this concept, they did not readily realize this lesson was part of the story.

Lizard Lounge

Engagement

Participants were also highly engaged with the *Lizard Lounge* story. There was much laughter and children found Ari to be particularly amusing. Some found it funny that Ari had to use the leaf umbrella, and they liked it when he flew over the lizards.



Children paid close attention to the entire story and were able to recall a lot of details at the end of the sessions. They typically remembered all the things that lizards liked to eat, they understood that the characters were trying to move the lizards and the rock in order for Mrs. Beaver to build a bench in that space, and they remembered that lizards preferred areas that were sunny and warm.

Once again, children were every eager to share their thoughts and ideas throughout the sessions. Researchers asked for input on how the characters could help Mrs. Beaver move the lizards. Many children came up with great ideas, including adding the lizards' preferred

foods to the new rock, picking them up and moving them to a new location, and/or using Ari's leaf umbrella to shade the lizards' rock.

Content Comprehension

Participants seemed to comprehend the **Lizard Lounge** story without much difficulty. They understood the problem that the characters faced in the story, and understood the character's proposed solutions.

Children were familiar with most of the vocabulary introduced in the story, but there was a small exception with the terms **shade** or **shady**. With assistance from the researchers, participants were able to connect shade/shady with **shadows**, a term they seemed to be more familiar with.

Children also understood the concept that shady areas feel cooler than sunny ones, but they had more difficulty aligning that idea with the lizards' behaviors. **The idea of lizards needing a heat source (like the sun) to help them get warm was a little tricky to grasp at first.** At the start of the sessions, there was a mix of responses from in-school and in-office participants when asked where lizards would prefer to lounge. The in-office groups were given paper lizards to place in either a simulated sunny or shady location. Although most kids did place their lizards in the sunny location, there were a few individuals who wanted their lizards to stay in the shade. **By the end of the story, the majority of children agreed that lizards liked warm, sunny places.** Most participants who'd placed their lizards in the shady location at the beginning of the session chose to move them after hearing the story, but there was one child who did not want to move his lizard to the sunny rock because he believed that it would "be too hot" for his lizard. Thus, it is possible that some children may need more scaffolding to help them understand that the lizards are different than us—and presumably the kids in the story. Whereas Ari kept having to seek out shady spots to help him stay cool, the lizards prefer hot, sunny spots.

There was also some confusion regarding how the characters in the story solved their problem. When asked how Elinor and her friends got the lizards to move, many children claimed that it was because they had added bugs and worms to the other rock, not because Ari had helped to shade the lizards' rock by flying over it. **Children tended to remember the types of foods that lizards like to eat, but they struggled a bit more to understand that**



the kids in the story eventually had to shade the lizards' rock in order to get the lizards to move.

Participants also envisioned **alternative solutions** for moving the lizards, and this was taken as further evidence of their engagement in, and comprehension of the story. For instance, children suggested that the characters could pick up the lizards and move them to another location, add more bugs and worms—or fruits—to the other rock, use Ari's leaf umbrella to shade the lizards' rock, or move the rock with the lizards to a shady location or another sunny location to free up the space (though some thought that it might be hard to move the rocks and were surprised that they had been able to move the one rock). Others wondered why the kids didn't try to convince Mrs. Beaver to find a new location for the bench. Perhaps children's additional ideas about how to solve the problem may have interfered with their ability to remember how the problem was actually solved (i.e., Ari providing shade by flying over the rock).

Suggestions



Some children may have been confused by the fact that Ari was struggling to stay cool throughout the story, whereas the lizards needed to be in a sunny, warm place. If children honed in on Ari's problem staying cool, it may have been harder for them to understand the lizards' need to stay warm. Seeking to make the problems more similar (rather than the opposite of each other), may foster greater understanding.



The story mentions the fact that lizards need help with staying warm, but that information did not seem to register as well as some of the other facts introduced in the story. Additional emphasis and explanation about lizards' need for sun in order to stay warm may also be helpful. Children understood that the sun provided lizards with warmth, but they may not have understood the necessity of it.

In-School vs. In-Office Sessions

In general, there were not a lot of differences between the in-school and in-office testing sessions. We were able to incorporate more hands-on experiences during the in-office sessions, (i.e., making observations about feathers, selecting a location that a lizard would like best), but ultimately participants from both types of groups were successful in making observations and understanding the difference between sunny and shady environments.

Animal type seemed to be a determining factor in which character kids' picked as their favorite. Participants also tended to have character preferences based on gender identity, with many stating that they picked their favorite character based on gender (e.g., "She's a girl

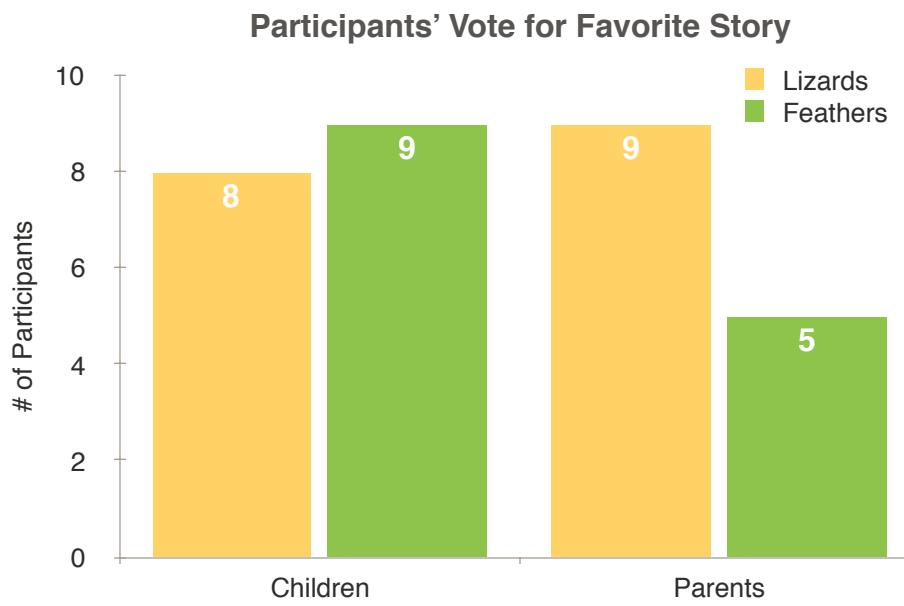
like me”). There seemed to be more gender-driven preferences for favorite characters within the in-school groups, but this effect could have been magnified by the larger group sizes in those sessions. Within the in-school groups, there were more boys who selected Ari as their favorite character while most girls chose Elinor or Hazel.

The greatest difference between in-school and in-office participants seemed to stem from differences in out-of-school experiences. Families from the in-office sessions seemed to understand certain elements of the stories more so than the majority of the participants from the Head Start centers. For instance, a few in-office participants reported that they had lizards at home or have encountered real lizards. These real-world experiences helped inform their understanding of lizard's preferences for bright and hot environments. A few of the families from the in-office testing sessions mentioned that they participate in a Nature Club, where the children explore and make observations about nature every day. The in-office participants also seemed to be more familiar with feather pillows than students in the in-school groups. Therefore, the Head Start participants may have been at a slight disadvantage when it came to understanding some details within each story, but these deficits were not severe enough to have prevented the children from enjoying and learning from the stories. The comparative lack of real-world experiences among the Head Start students—in contrast to those of youth from more affluent families—also reinforces the need for a series such as *Elinor's Town*.

In-office Survey

At the end of the in-office sessions, parents and children were asked to compare the two stories and identify one as their favorite.

Children were fairly evenly divided between *Feathers* or *Lizard Lounge*, which is consistent with the responses from the in-school groups. Parents, however, tended to prefer the *Lizard Lounge* story. Parents noted appreciation for the fact that the characters in both stories (but especially in *Lizard Lounge*) helped each other and worked together to solve problems.



Summary

Over a three-day testing period, Rockman et al (REA) conducted formative storybook feedback sessions for the new PBS Kids program *Elinor's Town* with preschoolers in Indianapolis and Bloomington, Indiana. Participants in Indianapolis were students from Head Start centers, while participants from Bloomington consisted of local families. Researchers read the stories aloud to participants, and observed outward indicators of enjoyment as the stories were being read, and asked questions to gauge appeal and comprehension during and after each story.

Overall, participants seemed to enjoy *Elinor's Town*. They liked the characters, and they liked brainstorming solutions to help the characters solve their problems. They also learned new vocabulary and facts about feathers and lizards. However, there were a few parts of each story that weren't fully understood by all children and may therefore be examples of instances where preschoolers need more support. **For this age group, less narrative complexity may be more effective.** Preschoolers struggle with more abstract, higher-level analogies and examples. They are better able to follow stories with very explicit explanations. For both *Feathers* and *Lizards Lounge*, children struggled a bit to follow or remember the more complex aspects of the stories. Comprehension and retention of details about more complex stories may improve once the stories are animated, or after repeated viewing, but the results from this study suggest that preschoolers may need more explanation of complex concepts and explicit statements of the main points in order to better ensure they are coming away with key concepts and ideas. Even in instances where they may not have followed all aspects of the story completely or correctly, participants were still exhibiting high levels of engagement and enjoyment. The storybook testing sessions sparked a lot of excitement and many of the children and parents who participated said they are looking forward to the debut of *Elinor's Town*.